Every other year, Noble Research Institute's youth education program hosts a Curriculum for Agricultural Science Education (CASE) Institute workshop for teachers. This summer, the program is set to host the CASE Animal and Plant Biotechnology Institute in partnership with Oklahoma State University, Southern Tech and Oklahoma CareerTech. High school agriculture teachers who attend this institute will be certified to provide students with experiences in industry-appropriate applications of biotechnology related to plant and animal agriculture.

So, how does Noble's involvement in this workshop for teachers impact producers? The answer is simple. It helps cultivate the next generation of producers and consumers by enabling agricultural teachers to provide some of the best, hands-on, agricultural and STEM-based (science, technology, engineering and math) curriculum for today's students.

Today, fewer and fewer students are exposed to agriculture, and there is a deficit of skilled workers in the profession. Even students who may be from a farm may not realize the great opportunities for a variety of careers in the industry. Therefore, it is important to provide exciting and engaging classroom experiences that capture students' attention and interest while conveying the importance of — and fostering an appreciation for — career opportunities in agriculture.

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The CASE Institute does just this. It offers rigorous and relevant STEM-based agricultural curriculum and training to teachers so they may use it in their classrooms. CASE has designed its courses to follow several pathways so they can fit into current agricultural program structures. Every CASE course promotes core concepts that every student should know in each agricultural subject area, taught in conjunction with science, math and technology concepts. The curriculum is designed to spiral students through the material, where each lesson builds on prior ones to form a complete understanding of the subject.

CASE is more than just a curriculum, however. It also serves as an instructional support system for teachers that includes hands-on training from experienced classroom teachers, a peer support system, and tools and resources to aid in student achievement. Teachers who attend the institute at Noble this summer will be certified to provide students with experiences in industry-appropriate applications of biotechnology related to plant and animal agriculture. As biotechnology and its products (e.g. RR alfalfa) become more and more prevalent in agriculture, the next generation of producers and consumers may find themselves using and coming in contact with them more often. Educating these students about this science in agriculture will enable them to make informed decisions as potential producers in the future.

Even if these students don’t go on to be producers, exposure to curriculum like this may produce the next-generation plant or animal scientist who aspires to solve great challenges in agriculture, policymakers who advocate for agriculture and the science behind it, educators who promote agriculture in their classroom, or informed consumers who appreciate the incredible families who grow our food, clothing and shelter.

So, does our hosting a CASE Institute this summer directly impact you today? Perhaps not. But in the future, it could mean more-engaging agriculture classes for your children, better-educated candidates to work in your operation or new discoveries by the next generation of agricultural research scientists.